Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- response to HER-2/neu protein, the method comprising the step of administering to a warm-blooded animal a composition comprising an isolated protein comprising a Her2/Neu HER-2/neu ECD-PD fusion protein in an amount effective to elicit or enhance the immune response, the Her 2/neu HER-2/neu ECD-PD fusion protein comprising consisting of a Her-2/neu HER-2/neu extracellular domain fused to a Her-2/neu HER-2/neu phosphorylation domain, wherein the HER-2/neu fusion protein comprises at least 90% identity to SEQ ID NO:6 is encoded by a nucleic acid that hybridizes under stringent conditions to the complement of a nucleic acid sequence encoding an amino acid sequence of SEQ ID NO:6, wherein the hybridization reaction is incubated in a solution comprising 5x SSC at a temperature of 50-65°C and washed in a solution comprising 0.2x SSC and 0.1% SDS at a temperature of 65°C, and wherein the HER-2/neu fusion protein is capable of producing an immune response in a warm-blooded animal.
- 114. (Previously Presented) The method of claim 113, wherein the composition is administered in the form of a vaccine.
- 115. (Previously Presented) The method of claim 113, wherein the fusion protein comprises an amino acid sequence of SEQ ID NO:6.
- 116. (Previously Presented) The method of claim 113, wherein the fusion protein comprises an amino acid sequence of SEQ ID NO:7.
- 117. (Previously Presented) The method of claim 113, wherein the fusion protein is lipidated.

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- 118. (Previously Presented) The method of claim 113, wherein the composition comprises a physiologically acceptable carrier or diluent.
- 119. (Previously Presented) The method of claim 118, wherein the composition comprises an oil-in-water emulsion.
- 120. (Previously Presented) The method of claim 119, wherein the composition comprises tocopherol.
- 121. (Previously Presented) The method of claim 113, wherein the composition comprises an immunostimulatory substance.
- 122. (Previously Presented) The method of claim 121, wherein the composition comprises an immunostimulatory substance comprising 3D-MPL, QS21, or a combination of 3D-MPL and QS21.
- 123. (Currently Amended) The method of claim 121, wherein the composition comprises an immunostimulatory substance comprising 3dMPL 3D-MPL and QS21 in an oil-inwater emulsion.
- 124. (Previously Presented) The method of claim 123, wherein the composition comprises tocopherol.
- 125. (Previously Presented) The method of claim 113, wherein the composition comprises a CpG-containing oligonucleotide.
- 126. (Previously Presented) The method of claim 113, wherein the step of administering comprises transfecting cells of the warm-blooded animal ex vivo with the

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composition comprising the fusion protein and subsequently delivering the transfected cells to the warm-blooded animal.

- response to HER-2/neu protein, the method comprising the step of administering to a warm-blooded animal a composition comprising a nucleic acid molecule encoding a polypeptide comprising a HER-2/neu fusion protein in an amount effective to elicit or enhance the immune response, the HER-2/neu fusion protein eomprising consisting of a HER-2/neu extracellular domain fused linked to a HER-2/neu phosphorylation domain, wherein the nucleic acid hybridizes under stringent conditions to the complement of a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO:6, wherein the hybridization reaction is incubated in a solution comprising 5x SSC at a temperature of 50-65°C and washed in a solution comprising 0.2x SSC and 0.1% SDS at a temperature of 65°C-HER-2/neu fusion protein comprises at least 90% identity to SEQ ID NO:6, and wherein the HER-2/neu fusion protein is capable of producing an immune response in a warm-blooded animal.
- 128. (Previously Presented) The method of claim 127, wherein the nucleic acid molecule is in the form of a vaccine.
- 129. (Previously Presented) The method of claim 127, wherein the step of administering comprises transfecting cells of the warm-blooded animal *ex vivo* with the composition comprising the nucleic acid molecule and subsequently delivering the transfected cells to the warm-blooded animal.
- 130. (Previously Presented) The method of claim 127, wherein the composition comprises a lipid.
- 131. (Previously Presented) The method of claim 127, wherein the composition comprises a physiologically acceptable carrier or diluent.

- 132. (Previously Presented) The method of claim 127, wherein the nucleic acid molecule is a viral vector encoding a HER-2/neu fusion protein.
- 133. (Previously Presented) The method of claim 127, wherein the viral vector is an adenoviral vector.
- 134. (Previously Presented) The method of claim 129, wherein the nucleic acid molecule is a viral vector encoding a HER-2/neu fusion protein.
- 135. (Previously Presented) The method of claim 134, wherein the viral vector is an adenoviral vector.
- 136. (Previously Presented) The method of claim 127, wherein the nucleic acid molecule encodes a protein comprising an amino acid sequence of SEQ ID NO:6.
- 137. (Previously Presented) The method of claim 127, wherein the nucleic acid molecule encodes a protein comprising an amino acid sequence of SEQ ID NO:7.
- response to HER-2/neu protein, the method comprising the step of administering to a warm-blooded animal a composition comprising a viral vector comprising a nucleic acid molecule encoding a HER-2/neu fusion protein in an amount effective to elicit or enhance the immune response, the HER-2/neu fusion protein comprising consisting of a HER-2/neu extracellular domain fused to a HER-2/neu phosphorylation domain, wherein the nucleic acid hybridizes under stringent conditions to the complement of a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO:6, wherein the hybridization reaction is incubated in a solution comprising 5x SSC at a temperature of 50-65°C and washed in a solution comprising 0.2x SSC and 0.1% SDS at a temperature of 65°C HER-2/neu fusion protein comprises at least 90%

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identity to SEQ ID NO:6, and wherein the <u>HER-2/neu fusion</u> protein is capable of producing an immune response in a warm-blooded animal.

- 139. (Previously Presented) The method of claim 138, wherein the step of administering comprises infecting cells of the warm-blooded animal ex vivo with the viral vector and subsequently delivering the infected cells to the warm-blooded animal.
- 140. (Previously Presented) The method of claim 138, wherein the composition comprises a lipid.
- 141. (Previously Presented) The method of claim 138, wherein the composition comprises a physiologically acceptable carrier or diluent.
- 142. (Previously Presented) The method of claim 138, wherein the viral vector is an adenoviral vector.
- 143. (Previously Presented) The method of claim 138, wherein the nucleic acid molecule encodes a protein comprising an amino acid sequence of SEQ ID NO:6.
- 144. (Previously Presented) The method of claim 138, wherein the nucleic acid molecule encodes a protein comprising an amino acid sequence of SEQ ID NO:7.